

The role of social support and academic self-efficacy in enhancing academic engagement among undergraduates

Elizabeth Ifeoma Anierobi¹, Amjad Islam Amjad², Favour Amarachi Ubani¹, Sarfraz Aslam³,
Mohamad Ahmad Saleem Khasawneh⁴, Huda Alshamsi⁵

¹Department of Educational Foundations, Faculty of Education, Nnamdi Azikiwe University, Awka, Nigeria

²Department of Education, The University of Lahore, Lahore, Pakistan

³Faculty of Education and Humanities, UNITAR International University, Petaling Jaya, Malaysia

⁴Department of Special Education, King Khalid University, Abha, Saudi Arabia

⁵Higher Colleges of Technology, Government of United Arab Emirates, Ras Al-Khaimah, United Arab Emirates

Article Info

Article history:

Received Dec 10, 2024

Revised Jun 20, 2025

Accepted Jul 25, 2025

Keywords:

Academic engagement

Academic self-efficacy

Self-determination theory

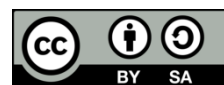
Social support

Undergraduate students

ABSTRACT

Academic engagement is vital to students' academic success, especially in higher education settings where motivation and support systems vary widely. This study investigated the influence of social support and academic self-efficacy on academic engagement among undergraduates of Nnamdi Azikiwe University. The main objectives were to determine the extent to which parental and peer support and students' belief in their academic abilities correlate with their level of academic engagement. A correlational research design was used to guide the study. From a total population of about 20,000 undergraduate students enrolled in the 2023/2024 academic session, a sample of 403 students was randomly selected using a simple random sampling technique to ensure equal representation. Data were collected using three standardized instruments: the social support questionnaire (SSQ), the academic self-efficacy questionnaire (ASEQ), and the academic engagement questionnaire (AEQ). The data were analyzed using SPSS software. Pearson's product-moment correlation and multiple regression analysis were used to test the research questions and hypotheses. Findings showed significant positive relationships between social support (both parental and peer), academic self-efficacy, and students' academic engagement. These results highlight the importance of fostering supportive learning environments and building students' confidence in their academic abilities. Practical implications suggest that universities should implement structured peer mentoring, parental involvement strategies, and workshops that enhance academic self-efficacy to improve student engagement and academic outcomes.

This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



Corresponding Author:

Sarfraz Aslam

Faculty of Education and Humanities, UNITAR International University

47301 Petaling Jaya, Selangor, Malaysia

Email: sarfraz.aslam@unitar.my

1. INTRODUCTION

Academic engagement is a matter of concern to parents and teachers, given that students must learn and perform well in their studies. Literature provided evidence of distractions students face, which drag them from actively engaging in their studies and other academic activities [1]. For instance, social media misuse, which leads to procrastination, lack of interest and motivation [2], lack of positive teacher-student relationship and poor academic preparedness [3], and poor psychological capital, which invariably negatively

affects academic achievement, poor parental support were reported among the factors that hinder active academic engagement among students [4]. Academic engagement could be perceived as students' involvement, dedication, commitment, passion, enthusiasm, and effort exerted and expended in their academic endeavors. It is the amount of time, effort, and energy invested in learning activities, as demonstrated by cognitive, affective, and behavioral indicators. The literature also supports that academic engagement involves commitments driven by students' motivation to succeed academically [5]. This leads them to actively participate in learning activities to gain knowledge and build critical thinking. Forms of academic engagement include actively participating in class discussions, posing meaningful questions, feeling driven, intrigued, and excited about learning, relating to the subject matter, attending classes consistently, finishing assignments, and asking for assistance when necessary.

Academic engagement has some benefits for students, one of them being that it promotes their academic performance and achievement. This is true because students who actively engage in their studies and participate in learning usually perform well [6]. However, a study reported that only behavioral engagement significantly promoted student achievement in their research. Academic engagement has three components: behavioral, cognitive, and affective domains, or the vigor, dedication, and absorption components [7]. Whichever components of engagement are considered in any study, there is a need to promote and improve them for the benefit of the student. Students' academic engagement can be enhanced through internal and external factors like self-efficacy and social support [8], [9].

Social support describes the aid, help, and assistance given or rendered to an individual by others, including financial, emotional, or material aid. Contextually, social support refers to students' assistance from parents and peers to help them face, tackle, and surmount challenges and hindrances in accomplishing or actualizing their academic goals. A study defined social support as the assistance and encouragement others provide, critical in sustaining individuals' motivation and coping mechanisms, particularly in academic settings [10]. Social support can create a sense of belonging in students and boost their resilience, drive, and self-assurance as they pursue their academic goals. Parental support involves all the assistance and provisions parents make towards the smooth academic journey of their wards. In contrast, peer support encompasses the help students receive from their friends and classmates towards their success in school. It is also evident that home-based parental involvement plays a crucial role in students' academic engagement by providing children with the necessary emotional, academic, and social resources to enhance their educational outcomes. Another study argued that peer support improves social skills, emotional intelligence, academic motivation, self-worth, confidence, and belonging [11].

Literature has shown a link between social support and students' academic outcomes. Students who do not have enough social support become less motivated and interested in their studies. In addition, a study reported low motivation and disinterest in studies among children who lack social support [12]. Deductively, students lacking social support would have hiccups in meeting their curricular involvement, consequently negatively affecting their grades. A study showed that lacking social support negatively impacts students' academic achievement [13]. Lack of social support can also affect the psychological state of students. In line with this perspective, a study implied that a lack of social support triggers stress and anxiety in students, which could have a detrimental impact on their academic engagement [14]. In other words, social support could promote positive psychology in students by boosting their self-efficacy.

Academic self-efficacy could be perceived as students' confidence and belief in their capacity to engage in and accomplish an academic task or demand [15]. Another study argues that academic self-efficacy is the degree to which students believe they can start and achieve an academic task within a particular academic or research area [16]. Studies have shown that children with a high sense of their abilities are likelier to stay involved in their studies and succeed academically. For instance, a study suggests that students with high academic self-efficacy tend to exhibit greater academic performance because they believe in their abilities to overcome challenges and achieve their goals [17], [18]. Similarly, another study observed a positive relationship between parental support and academic self-efficacy among primary school pupils, which can positively influence their academic engagement [19].

Students with high levels of academic self-efficacy are more likely to take charge of their education, participate actively in class, and ask questions. According to a study, academic engagement is positively linked to academic self-efficacy [20]. A study reported that academic self-efficacy, engagement, and performance are positively correlated, implying that they are necessary for students to achieve their academic goals [21]. Students with high academic self-efficacy could be said to prioritize work, set realistic objectives, and avoid procrastination because they have confidence in their ability to manage their time well, which increases productivity and efficiency. Undoubtedly, students with high academic self-efficacy would likely demonstrate effective time management skills, leading to improved academic performance and reduced procrastination. Sharing this perspective, the literature asserts that students with high academic self-efficacy are more likely to have good time management skills [22]. Academic self-efficacy promotes a growth

mentality and an openness to learning from others by motivating students to ask teachers, peers, and mentors for advice, support, and criticism when needed. According to the literature, students with high self-efficacy embrace a growth mindset, which is typified by the conviction that they can grow and improve through effort, commitment, and learning [23]. This mindset often leads to a willingness to seek feedback and guidance from others. Students with high levels of academic self-efficacy are more likely to actively engage in classroom activities, participate in discussions, and seek clarification through questions [24].

On the other hand, students with low academic self-efficacy participate less in class, contribute less to discussions, and refrain from raising questions, which lowers their academic engagement. For instance, according to a study, academic engagement is inversely correlated with low academic self-efficacy [25]. Several studies found that self-efficacy and academic engagement have a positive and strong connection among students [26]. Another study showed that self-efficacy plays a significant role in enhancing student engagement [27]. These students frequently put off and avoid doing their schoolwork, which results in missed deadlines and lower productivity. The literature supports that those having difficulties persisting in the face of academic challenges lead to poor academic performance [28]. According to a study, a lack of academic self-efficacy might result in a reliance on outside help for success in school [29].

Previous studies revealed that social support and academic self-efficacy significantly impact students' academic engagement since they positively affect it. A study reported that academic self-efficacy had the most potent predictive power in determining academic engagement [30]. Social support factors, including teacher support, parental involvement, and peer attachment, were also significant predictors when combined. This suggests that while academic self-efficacy is a key driver, the role of external social support systems is vital in promoting student engagement. Another equally observed significant positive correlation between components of peers' perceived support, student engagement in academic activities, and life satisfaction, which can boost students' self-efficacy [31]. Similarly, a study reported that social support available to students boosts self-efficacy, with a positive ripple effect on their academic engagement [8].

Moreover, the literature supports that found that academic self-efficacy and social support are good predictors of academic adjustment, which can lead a student to active engagement in studies [32]. Arguably, a student who lacks proper adjustment would be vulnerable to distractions. On the other hand, some scholars revealed no significant relationship between social support, academic self-efficacy, and academic engagement among undergraduate students [33].

This study is anchored on the self-determination theory, which argues that humans have three fundamental psychological needs to motivate them to act: autonomy, relatedness, and competence [34]. That is to say that one would be determined to engage in their studies and other academic activities in the presence of their confidence and ability to take up and accomplish their educational tasks, as well as with the support or involvement of significant others around them. This research is crucial because it focuses on the underexplored interplay between social support and self-efficacy in predicting academic engagement, an area particularly relevant in today's increasingly autonomous learning environments. What sets this study apart is its integrated framework that examines direct relationships and how these psychological factors influence students' academic behavior.

The findings of this study hope to advance the frontiers of knowledge and provide a theoretical framework for the relationship between social support and self-efficacy and the academic engagement of university students. In light of this theoretical foundation, this study has three objectives: i) to examine the impact of social support on university students' academic engagement; ii) to investigate the mediating role of self-efficacy in the relationship between social support and academic engagement; and iii) to explore whether these relationships differ based on students' gender and year of study. Therefore, following research questions were drawn to find the unfolded realities regarding study's objectives:

- What is the relationship between social support and academic engagement among undergraduate students of a public university in Anambra State?
- What is the relationship between academic self-efficacy and academic engagement among undergraduate students of a public university in Anambra State?
- What is the joint relationship between social support, academic self-efficacy, and academic engagement among undergraduate students of a public university in Anambra State?

In addition, the following research hypotheses guided the current study:

- There is no significant relationship between social support and academic engagement among undergraduate students of a public university in Anambra State (HO1).
- There is no significant relationship between academic self-efficacy and academic engagement among undergraduate students of a public university in Anambra State (HO2).
- There is no significant relationship between social support, academic self-efficacy, and academic engagement among undergraduate students of a public university in Anambra State (HO3).

2. METHOD

The current study is guided by the correlational research design. The population comprised over 20,000 respondents of undergraduate regular students of the 2023/2024 session in a public university in Anambra State, Nigeria. The sample size was 403 students drawn using the random sampling technique. The instruments used for data collection were three sets of instruments validated by three experts in the Faculty of Education, a public university in Anambra State.

The instruments used were the social support questionnaire (SSQ), academic self-efficacy questionnaire (ASEQ), and academic engagement questionnaire (AEQ). The SSQ is an 8-item questionnaire designed to assess the perceived availability and quality of social support from various sources, including family and friends. The ASEQ is a 7-item questionnaire to assess students' confidence in their ability to perform academic tasks and achieve educational goals. The AEQ is a 6-item questionnaire designed to elicit information on students' involvement, participation, and motivation in academic activities.

The SSQ was constructed on a 4-point rating scale and weighted scores of very true (VT)=4, true (T)=3, somewhat false (SF)=2, false (F)=1. The ASEQ was also constructed on a 4-point rating scale but weighted very confident (VC)=4, confident (C)=3, less confident (LC)=2, not confident at all (NC)=1, while the AEQ was also on a 4-point rating scale of strongly agree (SA)=4, agree (A)=3, disagree (D)=2, strongly disagree (SD)=1. The reliability of the SSQ, ASEQ, and AEQ was determined using Cronbach's alpha. The correlation coefficients obtained were .87 for social support, .83 for academic self-efficacy, and .91 for scholarly engagement.

The researchers administered the questionnaires to the students through a Google Form link, and 403 respondents formed the sample size. The students were informed about the purpose of the study, their consent was sought to participate, and their anonymity was ensured. The ethical committee approved this study (Approval #SE/GOP/076-2024).

After collecting data was managed in an Excel Sheet, which was later analyzed using SPSS software (version 27). We applied both descriptive and inferential statistics. The research questions were answered using the Pearson product-moment correlation coefficient. However, the research hypotheses were tested using multiple regression analysis at the .05 significance level to determine the association of the variables.

3. RESULTS

Before applying the statistics, we tested the data on parametric assumptions. The data fulfilled the normality, homogeneity, and equal variance assumptions, leading us to analyze the data further to answer research questions and test hypotheses. This research applied descriptive statistics to raise awareness of the demographic information of respondents, which is provided in Table 1.

Table 1. Students' socio-demographic characteristics

Variables		Frequency	Percentage (%)
Field	Humanities	138	34.2
	Technology/ICT	60	14.9
	Sciences	106	26.3
	Commercial	99	24.6
Residence	Inside campus	43	10.7
	Off-campus	360	89.3
Gender	Male	133	33.0
	Female	270	67.0
Total		403	100.0

Table 1 reveals that the sample size consists of more female undergraduate students (270, 67.0%) than male undergraduate students (133, 33.0%). In terms of field of study, 138 respondents, representing 34.2%, are in the humanities; 60 respondents (14.9%) are from the field of technology/ICT; 106 respondents, (26.3%) are from the sciences; while 99 participants (24.6%) are from commercial field. Furthermore, 43 respondents, representing 10.7%, reside on the campus, while 360 participants (89.3%) reside off campus. Moreover, the age of the respondents is presented in Figure 1. The figure shows a bar chart of students' ages. It reveals that the respondents ranged from 16 to 34, with 21-year-olds having the highest frequency (63) and percentage (15.6%) and 29 and 31-year-olds having the lowest frequencies (03) and percentages (.7%).

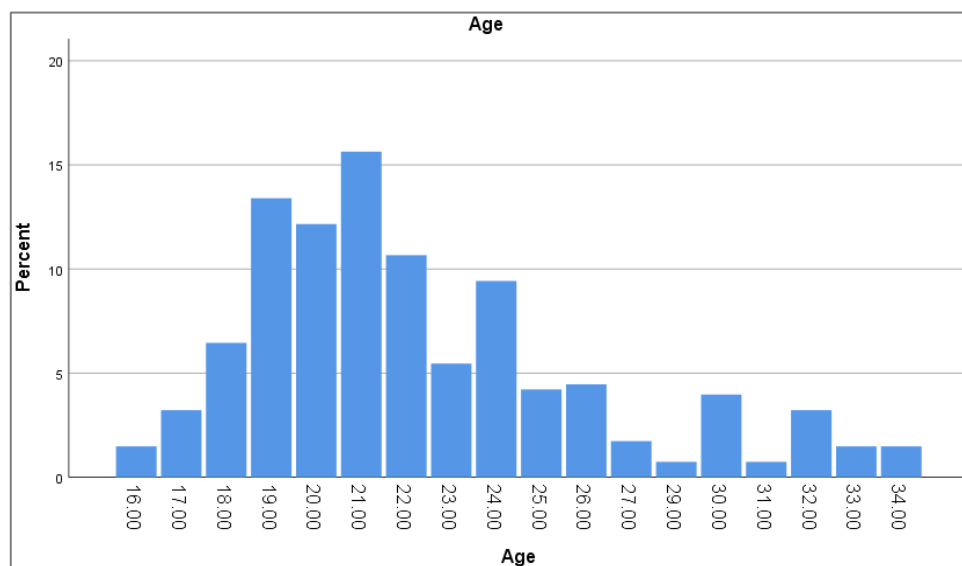


Figure 1. Students' age

3.1. Results of research questions

Table 2 reveals that social support, with a mean (25.45) and standard deviation (3.42), has a low and positive relationship ($r=.065$) with undergraduate students' academic engagement ($M=25.77$, $SD=6.04$). This implies a low and positive relationship between social support and undergraduate students' academic engagement in Anambra State Public University. In addition, Table 3 reveals that self-efficacy, with a mean (21.34) and standard deviation (3.77), has a low and positive relationship ($r=.101$) with undergraduate students' academic engagement ($M=18.20$; $SD=1.94$). This implies a low and positive relationship between self-efficacy and academic engagement among undergraduate students of a public university in Anambra State.

Table 2. Simple correlation showing the relationship between social support and academic engagement among undergraduate students of a public university in Anambra State

S/N	Variables	N	M	SD	1	2
1	Social support	403	25.45	3.42	1	.065
2	Academic engagement	403	25.77	6.04	.065	1

N=number of respondents, M=mean score, SD=standard deviation

Table 3. Simple correlation showing the relationship between academic self-efficacy and academic engagement among undergraduate students of a public university in Anambra State

S/N	Variables	N	M	SD	1	2
1	Academic self-efficacy	403	21.34	3.77	1	.101
2	Academic engagement	403	18.20	1.94	.101	1

Data in Table 4 show that social support and self-efficacy jointly have a low and positive ($R=.106$) relationship with the academic engagement of undergraduate students in a public university in Anambra State. The coefficient of determination of .011 indicates that 1.1% of the variance in academic engagement scores is co-predicted by social support and academic self-efficacy. By implication, social support and self-efficacy jointly have a low and positive relationship with academic engagement among undergraduate students in a public university in Anambra State.

Table 4. Model summary showing the joint relationship of social support and academic self-efficacy with academic engagement of undergraduate students in a public university in Anambra State

Model	R	R ²	Adjusted R ²	Std error
1	.106	.011	.006	1.937

3.2. Results of hypothesis

Table 5 reveals an F-ratio ($F=1.684$, $N=403$); $R(\beta=.065)$ with associated probability value ($p<.05$, $.195$). The p-value ($p>.195$) is greater than $.05$ and, therefore, found not significant. Thus, the null hypothesis was not rejected. The inference was that there is no significant relationship between social support and university students' academic engagement in a public university in Anambra State.

Table 6 reveals an F-ratio ($F=4.146$, $N=403$); $R(\beta=.101)$ with associated probability value ($p<.05$, $.042$). The p-value ($p\leq.042$) is less than $.05$ and, therefore, found significant. Thus, the null hypothesis was rejected. The inference drawn was that there is a significant relationship between academic self-efficacy and students' academic engagement in a public university in Anambra State.

Table 5. Linear regression analysis for social support and undergraduate students' academic engagement

Model	Unstandardized coefficients		Standardized coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	17.264	.727		23.751	.000
Social support	.037	.028	.065	1.298	.195
R	.065 ^a				.195
R ²	.004				.195
F	1.684				.195

Table 6. Linear regression analysis for academic self-efficacy and undergraduate students' academic engagement

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	17.086	.555		30.799	.000
Academic self-efficacy	.052	.026	.101	2.036	.042
R	.101				.042
R ²	.010				.042
F	4.146				.042

Table 7 shows that the regression coefficient (R) was $.106$ while R^2 was $.011$. This indicates that the predictor variables jointly contributed 1.1% to explain the variance in response. The corresponding $F(2.267)$ is statistically not significant ($p>.05$). Therefore, the finding indicates that the presence of social support and academic self-efficacy would not necessarily affect the educational engagement of undergraduate students in a public university in Anambra State. The null hypothesis was, therefore, accepted. Thus, social support and academic self-efficacy do not jointly predict the educational engagement of undergraduate students in a public university in Anambra State.

Table 7. Multiple regression analysis for the joint relationship between the determiners (social support and academic self-efficacy) and the undergraduate students' academic engagement

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	16.733	.791		21.165	.000
Social support	.019	.030	.033	.628	.531
Academic self-efficacy	.046	.027	.089	1.686	.093
R	.106				.105
R ²	.011				.105
F	2.267				.105

4. DISCUSSION

The study showed that the sample size consists of more female undergraduate students (270, 67.0%) than male undergraduate students (133, 33.0%). In terms of field of study, 138 respondents, representing 34.2%, are in the humanities; 60 respondents, representing 14.9%, are from the field of technology/ICT; 106 respondents, representing 26.3%, are from sciences; while 99 participants, representing 24.6%, are from the commercial field. Furthermore, 43 respondents, representing 10.7%, reside on the campus, while 360 participants, representing 89.3%, reside off campus. It also reveals that the ages of the respondents range from 16 years to 34 years, with 21 years having the highest frequency (63) and percentage (15.6%), and both 29 and 31 years have the lowest frequencies (03) and percentages (.7%).

The study revealed that social support has a low and positive relationship ($\beta=.312$) with the academic engagement of undergraduate students at Nnamdi Azikiwe University, Awka. Though the statistical analysis showed that this relationship is insignificant, it indicates that the slightest social support is necessary for students' academic engagement. This means that though social support is needed, it may not significantly promote students' engagement in academic activities. By implication, when students are determined in their academic pursuits, they could be internally propelled to engage in their studies irrespective of any external support they receive. This finding supports previous literature of Chan *et al.* [35], which found a positive connection between parental involvement and academic engagement. Similarly, the findings support research that emphasized that peer support positively affects students' academic engagement. Additionally, the study corroborates another study's findings, which showed a positive correlation between peer support and student academic engagement [31].

The study demonstrated that academic self-efficacy has a high and positive correlation ($\beta=.482$) with academic engagement, meaning that students with greater confidence in their academic abilities are more engaged in their studies. When subjected to statistical analysis, the finding was significant. This shows that an increase in students' academic self-efficacy goes with an increase in their academic engagement. It is a fact that when students have high confidence in their ability to take up and accomplish an academic task, it will boost their engagement in their studies. The findings of this study are consistent with the existing literature. It confirms the self-determination theory that confidence in one's academic ability could drive one's determination to engage in one's studies [34]. This finding validates a study's findings that self-efficacy significantly enhances student engagement [27]. The finding agrees with a study that observed self-efficacy and academic engagement have a positive and strong connection among students [26].

The findings of this study also indicated a significant joint relationship between social support, academic self-efficacy, and academic engagement. Combining these factors results in improved academic participation and student outcomes. Self-determination theory confirms that connectedness, which could be experienced through social support and a sense of competence with self-efficacy, is critical in propelling students into action [34]. This is to say that students who receive social support and experience self-confidence in their studies stand a better and higher chance of engaging actively in their academic activities. This result is consistent with a study that observed that social support and academic self-efficacy contribute significantly to student engagement [30]. The finding also validates the findings of several studies [8], [19], who found that parental support has a positive relationship with students' academic self-efficacy, which can boost their academic engagement. Since both variables of parental support and self-efficacy positively correlate with academic engagement individually, it follows to assert that both will jointly correlate positively with students' academic engagement. The finding also supports a study that observed a significant positive correlation between peers' perceived support, student engagement in academic activities, and life satisfaction, which can boost students' self-efficacy [31].

Similarly, it agrees with a study that reported that social support available to students boosts self-efficacy with a positive ripple impact on their academic engagement [8]. It further aligns with a study that found that academic self-efficacy and social support are good predictors of academic adjustment and attributes that can predispose a student to active engagement in studies [32]. Arguably, a student who lacks proper adjustment would be vulnerable to distractions. However, the finding disagrees with a study that claims no significant relationship exists between social support, academic self-efficacy, and academic engagement of undergraduate students [33].

5. CONCLUSION

The results of this study shed light on the relationships between social support, academic self-efficacy, and academic engagement among undergraduate students at a public university in Anambra State. Specifically, the findings revealed that social support and academic self-efficacy exhibit low but positive correlations with academic engagement. However, neither of these relationships reached statistical significance when tested through linear regression models, suggesting that social support may have a minimal impact on academic engagement. In contrast, academic self-efficacy was found to have a significant relationship with academic engagement, indicating its crucial role in enhancing students' academic involvement. When considering social support and academic self-efficacy, the joint contribution to explaining academic engagement was minimal, with only 1.1% of the variance in academic engagement being accounted for. This suggests that other factors may influence academic engagement beyond the scope of the variables studied. The findings imply that while academic self-efficacy has a direct impact, social support may not be as influential in the academic context of the participants in this study.

A key limitation of the study lies in its correlational design, which restricts the ability to infer causal relationships. Additionally, the low variance explained by the predictors suggests that future research should explore other potential determinants of academic engagement. It is also recommended that subsequent studies

incorporate larger and more diverse samples to enhance generalizability. Future research could also examine how cultural or institutional factors influence social support, academic self-efficacy, and engagement dynamics. Moreover, interventions designed to improve academic engagement may benefit from boosting students' self-efficacy rather than relying heavily on external social support structures.

The findings of this study have significant implications for educational practice and policy, particularly within the context of Nigerian public universities. The results show that while social support and academic self-efficacy have a weak relationship with academic engagement individually, they do not jointly predict academic engagement in this setting. This suggests that educational institutions should consider more direct and effective interventions to enhance academic engagement among students, such as targeted programs to build students' self-efficacy through skills development and personalized support systems. Educational policymakers could benefit from revising strategies that link student engagement to the social and academic resources available, ensuring these resources are effectively integrated into university curricula and support services to foster a more engaging academic environment. Furthermore, the weak correlation between social support and academic engagement implies that universities may need to reconsider the structure and delivery of their student support systems, such as mentoring programs, to ensure they more actively contribute to academic engagement.

In light of the results, it is also important for policymakers to emphasize the importance of academic self-efficacy in enhancing student engagement. The significant relationship between academic self-efficacy and engagement suggests that fostering students' confidence in their academic abilities may be a more powerful lever for enhancing engagement than relying solely on social support. Educational institutions should incorporate strategies that boost students' academic self-confidence through workshops, tutoring, and peer-assisted learning. Policy initiatives should support the development of such a strategy by allocating resources to programs that address students' psychological and emotional well-being and academic needs. These implications highlight the need for a more holistic approach to student engagement, which integrates both individual and social aspects of academic development.

FUNDING INFORMATION

The authors extend their acknowledgment to UNITAR International University Malaysia for publication support and to the Deanship of Scientific Research at King Khalid University for funding this work through Large Research Groups under grant number (RGP2/671/46).

AUTHOR CONTRIBUTIONS STATEMENT

This journal uses the Contributor Roles Taxonomy (CRediT) to recognize individual author contributions, reduce authorship disputes, and facilitate collaboration.

Name of Author	C	M	So	Va	Fo	I	R	D	O	E	Vi	Su	P	Fu
Elizabeth Ifeoma Anierobi	✓	✓	✓	✓	✓	✓		✓	✓	✓			✓	
Amjad Islam Amjad		✓			✓	✓	✓	✓	✓	✓	✓			
Favour Amarachi Ubani			✓	✓		✓			✓		✓		✓	
Sarfraz Aslam	✓			✓					✓			✓		
Mohamad Ahmad		✓			✓		✓			✓	✓			✓
Saleem Khasawneh														
Huda Alshamsi			✓	✓	✓		✓			✓	✓			

C : Conceptualization

M : Methodology

So : Software

Va : Validation

Fo : Formal analysis

I : Investigation

R : Resources

D : Data Curation

O : Writing - Original Draft

E : Writing - Review & Editing

Vi : Visualization

Su : Supervision

P : Project administration

Fu : Funding acquisition

CONFLICT OF INTEREST STATEMENT

The authors state no conflict of interest.

ETHICAL APPROVAL

The ethical committee of Nnamdi Azikiwe University, Awka, Nigeria, approved the current study (Approval #SE/GOP/076-2024).

DATA AVAILABILITY

The data is available from the first author [EIA] and can be provided upon reasonable request.

REFERENCES

- [1] A. J. Dontre, "The influence of technology on academic distraction: a review," *Human Behavior and Emerging Technologies*, vol. 3, no. 3, pp. 379–390, Jul. 2021, doi: 10.1002/hbe2.229.
- [2] N. A. Rone, N. A. A. Guao, M. S. Jariol, N. B. Acedillo, K. R. Balinton, and J. O. Francisco, "Students' lack of interest, motivation in learning, and classroom participation: how to motivate them?" *Psychology and Education: A Multidisciplinary Journal*, vol. 7, no. 4, p. 585, Aug. 2023.
- [3] A. Hennessy and K. Murphy, "Barriers to student engagement: a focus group study on student engagement of first-year computing students immediate," *Irish Educational Studies*, vol. 44, no. 1, pp. 183–200, Jan. 2025, doi: 10.1080/03323315.2023.2256552.
- [4] D. Yang, P. Chen, K. Wang, Z. Li, C. Zhang, and R. Huang, "Parental involvement and student engagement: a review of the literature," *Sustainability (Switzerland)*, vol. 15, no. 7, p. 5859, Mar. 2023, doi: 10.3390/su15075859.
- [5] F. L. Idulsa Jr. and R. A. Luzano, "Students' motivation and academic engagement in alternative learning system," *International Journal of Multidisciplinary Research and Analysis*, vol. 7, no. 3, pp. 1019–1032, Mar. 2024, doi: 10.47191/ijmra/v7-i03-21.
- [6] R. Sukor, A. F. Mohd Ayub, N. K. M. A. R. Ab Rashid, and F. A. Halim, "Relationship between students' engagement with academic performance among non-food science students enrolled in food science course," *Journal of Turkish Science Education*, vol. 18, no. 4, pp. 638–648, Dec. 2021, doi: 10.36681/tused.2021.95.
- [7] D. Lyesmaya, U. S. Hidayat, E. A. Almukarom, and S. O. Malayao Jr., "Nature as text: a systematic review of ecologically themed writing pedagogy and its influence on metacognition and student engagement," *IJORER: International Journal of Recent Educational Research*, vol. 6, no. 4, pp. 962–975, 2025, doi: 10.46245/ijorer.v6i4.930.
- [8] C. Chen, F. Bian, and Y. Zhu, "The relationship between social support and academic engagement among university students: the chain mediating effects of life satisfaction and academic motivation," *BMC Public Health*, vol. 23, no. 1, p. 2368, Nov. 2023, doi: 10.1186/s12889-023-17301-3.
- [9] K. M. Myint and N. N. Khaing, "Factors influencing academic engagement of university students: a meta-analysis study," *Myanmar Academy of Arts and Science*, vol. 18, no. 9, pp. 185–199, 2020.
- [10] C. R. Ikpeama and U. O. Okoye, "Perceived importance of social support on undergraduates' academic resilience in a Nigerian university: where do social workers come in?" *Journal of Social Work in Developing Societies*, vol. 6, no. 1, pp. 74–90, Feb. 2024, doi: 10.4314/jswds.v6i1.4.
- [11] S. Chaudhry, A. Tandon, S. Shinde, and A. Bhattacharya, "Student psychological well-being in higher education: the role of internal team environment, institutional, friends and family support and academic engagement," *PLoS ONE*, vol. 19, no. 1, p. e0297508, Jan. 2024, doi: 10.1371/journal.pone.0297508.
- [12] Q. Abbas *et al.*, "Brief cognitive behavior therapy for stigmatization, depression, quality of life, social support and adherence to treatment among patients with HIV/AIDS: a randomized control trial," *BMC Psychiatry*, vol. 23, no. 1, p. 539, 2023, doi: 10.1186/s12888-023-05013-2.
- [13] M. Hassan, S. Fang, A. A. Malik, T. A. Lak, and M. Rizwan, "Impact of perceived social support and psychological capital on university students' academic success: testing the role of academic adjustment as a moderator," *BMC Psychology*, vol. 11, no. 1, p. 340, 2023, doi: 10.1186/s40359-023-01385-y.
- [14] H. Shi, "The effect of social support on home isolation anxiety and depression among college students in the post-pandemic era: the mediating effect of perceived loss of control and the moderating role of family socioeconomic status," *Frontiers in Public Health*, p. 1288848, vol. 12, 2024, doi: 10.3389/fpubh.2024.1288848.
- [15] A. I. Amjad, M. A. Malik, S. Aslam, and M. Habib, "Bridging motivation and mastery: the role of self-efficacy in math education," *TEM Journal*, vol. 14, no. 1, pp. 492–502, 2025, doi: 10.18421/TEM141-44.
- [16] A. R. Foulstone and A. Kelly, "Enhancing academic self-efficacy and performance among fourth year psychology students: findings from a short educational intervention," *International Journal for the Scholarship of Teaching and Learning*, vol. 13, no. 2, p. 9, 2019, doi: 10.20429/ijstol.2019.130209.
- [17] T. Honicke and J. Broadbent, "The influence of academic self-efficacy on academic performance: a systematic review," *Educational Research Review*, vol. 17, pp. 63–84, 2016, doi: 10.1016/j.edurev.2015.11.002.
- [18] T. Honicke, J. Broadbent, and M. Fuller-Tyszkiewicz, "The self-efficacy and academic performance reciprocal relationship: the influence of task difficulty and baseline achievement on learner trajectory," *Higher Education Research and Development*, vol. 42, no. 8, pp. 1936–1953, 2023, doi: 10.1080/07294360.2023.2197194.
- [19] C. A. Ezurike, D. U. Ngwoke, and O. V. Ossai, "Parental support as a correlate of pupils' academic self-efficacy in Enugu State," *The Educational Psychologist*, vol. 13, no. 1, pp. 100–111, 2019.
- [20] Y. Nie *et al.*, "The relationship between physical activity, life satisfaction, emotional regulation, and physical self esteem among college students," *Scientific Reports*, vol. 15, no. 1, p. 15899, May 2025, doi: 10.1038/s41598-025-00651-w.
- [21] Q. Meng and Q. Zhang, "The influence of academic self-efficacy on university students' academic performance: the mediating effect of academic engagement," *Sustainability*, vol. 15, no. 7, p. 5767, 2023, doi: 10.3390/su15075767.
- [22] C. Bargmann and S. Kauffeld, "The interplay of time management and academic self-efficacy and their influence on pre-service teachers' commitment in the first year in higher education," *Higher Education*, vol. 86, no. 6, pp. 1507–1525, 2023, doi: 10.1007/s10734-022-00983-w.
- [23] E. Rhew, J. S. Piro, P. Goolkasian, and P. Cosentino, "The effects of a growth mindset on self-efficacy and motivation," *Cogent Education*, vol. 5, no. 1, p. 1492337, 2018, doi: 10.1080/2331186X.2018.1492337.
- [24] M. L. Aikens and A. R. Kulacki, "Identifying group work experiences that increase students' self-efficacy for quantitative biology tasks," *CBE—Life Sciences Education*, vol. 22, no. 2, p. ar19, 2023, doi: 10.1187/cbe.22-04-0076.
- [25] S. Fatimah, F. D. Murwani, I. A. Farida, and I. Hitipeuw, "Academic self-efficacy and its effect on academic engagement: meta-analysis," *International Journal of Instruction*, vol. 17, no. 1, pp. 271–294, Jan. 2024, doi: 10.29333/iji.2024.17115a.

- [26] J. R. Casanova, J. Sinval, and L. S. Almeida, "Academic success, engagement and self-efficacy of first-year university students: personal variables and first-semester performance," *Anales de Psicología*, vol. 40, no. 1, 2024, doi: 10.6018/analesps.479151.
- [27] Y. Zhao, Z. Zheng, C. Pan, and L. Zhou, "Self-esteem and academic engagement among adolescents: a moderated mediation model," *Frontiers in Psychology*, vol. 12, p. 690828, 2021, doi: 10.3389/fpsyg.2021.690828.
- [28] G. C. Unachukwu, E. I. Anierobi, K. C. Nwosu, and N. U. Okeke, "TRDF influence of academic self-efficacy and resilience on academic achievement among secondary school students in Aguata Lga, Anambra State, Nigeria," *Journal of the Nigerian Academy of Education*, vol. 16, no. 2, pp. 116–130, 2020.
- [29] K. Hamann, M. A. E. Pilotti, and B. M. Wilson, "What lies beneath: the role of self-efficacy, causal attribution habits, and gender in accounting for the success of college students," *Education Sciences*, vol. 11, no. 7, p. 333, 2021, doi: 10.3390/educsci11070333.
- [30] H. Qudsyi, I. Husnita, R. Mulya, A. A. Jani, and A. D. Arifani, "Student engagement among high school students: roles of parental involvement, peer attachment, teacher support, and academic self-efficacy," in *3rd International Conference on Learning Innovation and Quality Education (ICLIQE 2019)*, 2020, pp. 241–251, doi: 10.2991/assehr.k.200129.032.
- [31] R. Hakimzadeh, M.-A. Besharat, S. A. Khaleghinezhad, and R. G. Jahromi, "Peers' perceived support, student engagement in academic activities and life satisfaction: a structural equation modeling approach," *School Psychology International*, vol. 37, no. 3, pp. 240–254, Jun. 2016, doi: 10.1177/0143034316630020.
- [32] S. O. Olugbeko and E. O. Lana, "Academic self-efficacy and social support as predictors of school adjustment of first-year university students in Nigeria," *Journal of Educational Innovation and Practice (JEIP)*, vol. 8, no. 3, pp. 1–9, 2024.
- [33] X. Zhang and W. Qian, "The effect of social support on academic performance among adolescents: the chain mediating roles of self-efficacy and learning engagement," *PLoS ONE*, vol. 19, no. 12, p. e0311597, 2024, doi: 10.1371/journal.pone.0311597.
- [34] E. L. Deci and R. M. Ryan, *Handbook of self-determination research*. Rochester, NY: University Rochester Press, 2002.
- [35] M. Chan, M. Manzoni, H. Hong, and L. Y. L. Khong, "Multidimensional profiles of parent involvement: antecedents and impact on student engagement," *British Journal of Educational Psychology*, vol. 92, no. 2, pp. 447–464, Jun. 2022, doi: 10.1111/bjep.12456.

BIOGRAPHIES OF AUTHORS



Elizabeth Ifeoma Anierobi    is a Ph.D. holder, an educational psychologist, and a lecturer at the Department of Educational Foundations, Faculty of Education, Nnamdi Azikiwe University, Awka. She is a member of prestigious professional associations such as the National Institute of Management (Chartered) and the Neo Cycle of Educational Psychologists. She has attended and presented papers at many conferences and served on many committees at the university. She has also served as a reviewer and editor in many journals. She has authored and co-authored some book chapters and numerous papers published in national and international journals. She is open to research collaboration in multidisciplinary areas for diversity in knowledge. She can be contacted at email: ei.anierobi@unizik.edu.ng.



Amjad Islam Amjad    is a Ph.D. and an established international researcher. He earned his Ph.D. (education) from the University of Lahore, Pakistan, in February 2023. He was a researcher and data analyst at the University of Lahore for 3 years (2019–2022). He works as a reviewer and guest editor for several top-ranked international journals. He has taught subjects like educational research, statistics in education, policy and plan implementation, educational philosophy, and assessment and evaluation. He has published several articles with leading publishers, such as Wiley, Emerald, Taylor and Francis, and Tech Science Press. His research interests include positive psychology, school psychology, AI tools, neuroscience, inclusive education, special education, STEM education, technology, and education. He can be contacted at email: amjad_14@yahoo.com.



Favour Amarachi Ubani    is an education and English language graduate from Nnamdi Azikiwe University, Awka. She has a strong foundation in educational principles and practices and a passion for simplifying complex concepts. She is poised to contribute meaningfully to the field of education. She demonstrated a keen interest in educational research and development throughout her academic journey, focusing on improving learning outcomes. She is committed to lifelong learning and professional growth, seeking to make a positive impact in her community and beyond. With a strong passion for education and a desire to drive positive change, she is well-equipped to make a meaningful contribution to the field. She is eager to explore research opportunities and collaborate with scholars in various disciplines. She looks forward to pursuing further research and academic opportunities. She can be contacted at email: ubanifavour22@gmail.com.



Sarfraz Aslam     is an associate professor at the Faculty of Education and Humanities, UNITAR International University, Malaysia. He has tertiary education teaching experience spanning around two decades in different countries, including China, Pakistan, and Malaysia. His expertise covers STEM education, science education, teacher education, and ELM. He earned his Ph.D. in comparative education from Northeast Normal University, Changchun, China, where he was awarded Outstanding International Graduate. He holds the secretary position for the International Council of Associations for Science Education (ICASE). His research interests encompass online learning, STEM education, teacher education, educational psychology, and ELM. He can be contacted at email: sarfraz.aslam@unitar.my; sarfrazmian@nenu.edu.cn.



Mohamad Ahmad Saleem Khasawneh     holds a Ph.D. in special education from Amman Arab University, 2009. He has been working as an assistant professor in special education at King Khalid University since 2015. He worked as an assistant professor of special education at the University of Hail from 2009 to 2014. He is a licensed Photosensitivity Syndrome (SSS) screener by the Irlen Helen Center. Also, a licensed examiner to measure and diagnose learning difficulties from the Jordanian National Institute for Learning Difficulties. He is also a scientific advisor to Dar Al-Fikr for Publishing and Distribution, Amman. He is an academic scholar in the Wasit University Journal. He can be contacted at email: mkhasawneh@kku.edu.sa.



Huda Alshamsi     is a distinguished Emirati academic holding a Ph.D. in applied sociology from Mohamed V University in Morocco (2023). She has a strong academic background, including a master's degree in applied sociology from the University of Sharjah (2013) and a bachelor's degree in mathematics from the United Arab Emirates University (2003). Additionally, she obtained a Cambridge Diploma in teaching and specialized certifications in modern education. Currently, she serves as the Head of the Department of Arabic Language and Emirati Studies at the Higher Colleges of Technology, where she demonstrated excellence, receiving an "Exceeds Expectations" evaluation in 2022. Her research focuses on the intersection of artificial intelligence and academic publishing, with a keen interest in leveraging digital infrastructure to enhance interdisciplinary scientific collaboration. She can be contacted at email: halshamsil@hct.ac.ae.